THE IMPACT OF LIFE INSURANCE ON ECONOMIC GROWTH IN MALAYSIA AND SINGAPORE

LAN WEN HAI

SULTAN IDRIS EDUCATION UNIVERSITY

2025

THE IMPACT OF LIFE INSURANCE ON ECONOMIC GROWTH IN MALAYSIA AND SINGAPORE

LAN WEN HAI

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

DISSERTATION PRESENTED TO QUALIFY FOR A MASTER’S DEGREE
IN ECONOMICS
(RESEARCH MODE)

FACULTY OF ECONOMICS AND MANAGEMENT
SULTAN IDRIS EDUCATION UNIVERSITY

2025

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

UPSI/IPS-3/BO 32
Pind : 00 m/s: 1/1

UNIVERSITI PENDIDIKAN SULTAN IDRIS
SULTAN IDRIS EDUCATION UNIVERSITY

Please tick (√)
Project Paper
Masters by Research
Master by Mixed Mode
PhD

INSTITUTE OF GRADUATE STUDIES

DECLARATION OF ORIGINAL WORK

This declaration is made on the 5 day of 8 20 25

i. Student's Declaration:

I, Lan Wen Hai, M20211003220, Faculty of Management and Economics (PLEASE INDICATE STUDENT'S NAME, MATRIC NO. AND FACULTY) hereby declare that the work entitled The Impact of Life Insurance On Economic Growth In Malaysia and Singapore is my original work. I have not copied from any other students' work or from any other sources except where due reference or acknowledgement is made explicitly in the text, nor has any part been written for me by another person.

兰文海

Signature of the student

ii. Supervisor's Declaration:

I Assoc. Professor Dr. Norimah Binti Rambeli (SUPERVISOR'S NAME) hereby certifies that the work entitled The Impact Of Life Insurance On Economic Growth In Malaysia and Singapore (TITLE) was prepared by the above named student, and was submitted to the Institute of Graduate Studies as a * partial/full fulfillment for the conferment of Master Of Economics (PLEASE INDICATE THE DEGREE), and the aforementioned work, to the best of my knowledge, is the said student's work.

Date

Signature of the Supervisor

Prof. Madya Dr. Norimah Bt Rambeli@Ramli
Jabatan Ekonomi
Fakulti Pengurusan dan Ekonomi
Universiti Pendidikan Sultan Idris

UPSI/IPS-3/BO 31
Pind.: 01 m/s:1/1

UNIVERSITI PENDIDIKAN SULTAN IDRIS
SULTAN IDRIS EDUCATION UNIVERSITY

INSTITUT PENGAJIAN SISWAZAH /
INSTITUTE OF GRADUATE STUDIES

BORANG PENGESAHAN PENYERAHAN TESIS/DISERTASI/LAPORAN KERTAS PROJEK
DECLARATION OF THESIS/DISSERTATION/PROJECT PAPER FORM

Tajuk / *Title*: The Impact of Life Insurance On Economic Growth In Malaysia and Singapore

No. Matrik /*Matric's No.*: M20122003220

Saya / *I* : Lau Wen Hai

(Nama pelajar / *Student's Name*)

mengaku membenarkan Tesis/Disertasi/Laporan Kertas Projek (Kedoktoran/Sarjana)* ini disimpan di Universiti Pendidikan Sultan Idris (Perpustakaan Tuanku Bainun) dengan syarat-syarat kegunaan seperti berikut:-
acknowledged that Universiti Pendidikan Sultan Idris (Tuanku Bainun Library) reserves the right as follows:-

1. Tesis/Disertasi/Laporan Kertas Projek ini adalah hak milik UPSI.
   The thesis is the property of Universiti Pendidikan Sultan Idris
2. Perpustakaan Tuanku Bainun dibenarkan membuat salinan untuk tujuan rujukan dan penyelidikan.
   Tuanku Bainun Library has the right to make copies for the purpose of reference and research.
3. Perpustakaan dibenarkan membuat salinan Tesis/Disertasi ini sebagai bahan pertukaran antara Institusi Pengajian Tinggi.
   The Library has the right to make copies of the thesis for academic exchange.
4. Sila tandakan (√) bagi pilihan kategori di bawah / *Please tick (√) for category below:-*

☐	**SULIT/*CONFIDENTIAL***	Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub dalam Akta Rahsia Rasmi 1972. / *Contains confidential information under the Official Secret Act 1972*
☐	**TERHAD/*RESTRICTED***	Mengandungi maklumat terhad yang telah ditentukan oleh organisasi/badan di mana penyelidikan ini dijalankan. / *Contains restircted information as specified by the organization where research was done.*
√	**TIDAK TERHAD / *OPEN ACCESS***	

兰文海

(Tandatangan Pelajar/ Signature)

Tarikh: ________________

(Tandatangan Penyelia / *Signature of Supervisor*)
& (Nama & Cop Rasmi / *Name & Official Stamp*)

Prof. Madya Dr. Norimah Bt Rambeli@Ramli
Jabatan Ekonomi
Fakulti Pengurusan dan Ekonomi
Universiti Pendidikan Sultan Idris

Catatan: Jika Tesis/Disertasi ini **SULIT @ TERHAD**, sila lampirkan surat daripada pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh laporan ini perlu dikelaskan sebagai **SULIT** dan **TERHAD**.

Notes: If the thesis is CONFIDENTAL or RESTRICTED, please attach with the letter from the organization with period and reasons for confidentiality or restriction.

ACKNOWLEDGEMENT

Alhamdulillah, with His permission this dissertation was successfully completed. In the name of god, the most gracious, the most merciful. He is the one who gave me this opportunity to complete my study. He planned the right people always by my side, even difficulties can become ease. With his support and guidance, the completion of study is easy with his mercy. I am truly gratitude to my parents LI NA and LAN GUANG who have been encouraging and supportive, by the means of their sacrifices, so I be able to do my research with content and hope, without your support, I could not done my research properly , just because of your words and actions throughout the research process, it gives me such encouragement to complete my such, I would like to say praise be to god, may god have mercy on them. I would like to acknowledge the guidance of my main supervisor Associate professor Dr. Norimah binti Rambeli. Who is kind and patient toward her student, with her dedication of nourishing the knowledge and character, not only academically I got improvement, but also in terms of mentality. I would like to thank and appreciate the time and effort she made. I also would like to thank my grandparents, the study cannot be completed without your support and help, without your wisdom and constant encouragement, I could not be here today, thank you for being here for me.

ABSTRACT

The relationship between insurance and economic growth is one of the important issues debated by economists and policy makers in both developing and developed countries. This study aims to explore this relationship through theoretical debates, empirical studies, Macroeconomic models are constructed to analyse the effects of insurance on economic growth, and the effects of insurance are affected by other variables such as inflation, government debt and government expenditure. Therefore, this study aims to determine the short-term and long-term relationship between insurance and economic growth in Malaysia and Singapore over the time horizon of 1990 to 2022 in order to fulfil three objectives. The first objective is to identify the relationship between insurance and economic growth with the selected variables in both Malaysia and Singapore, the second objective is to examine the relationship between insurance and economic with government debt variable in long-run and short- run, the third objective is objective is to examine the relationship between insurance and economic with government expenditure variable in long-run and short- run. The dynamic analysis in this research utilizes the Autoregressive Distributed Lag (ARDL) approach. Results confirm the presence of a long-term relationship for both Malaysia and Singapore in the government debt model, as well as in the government expenditure model. Short-term dynamics in the government debt model are captured by Error Correction Model (ECM) coefficients of -0.334235 for Malaysia and -0.194263 for Singapore, highlighting Malaysia's faster adjustment to short-term shocks compared to Singapore. A similar outcome is observed on the government expenditure model, the coefficient for Malaysia is -0.382491 which is higher than Singapore, which recorded at -0.011665. In conclusion, the findings underscore the importance of developing the insurance sector as a strategic means to enhance economic stability and growth. To accomplish this target, policymakers are encouraged to promote insurance investment to leverage its potential benefits for sustainable economic development.

KESAN INSURANS TERHADAP PERTUMBUHAN EKONOMI: KAJIAN DI MALAYSIA DAN SINGAPURA

ABSTRAK

Hubungan antara insurans dan pertumbuhan ekonomi adalah salah satu isu penting yang dibahaskan oleh ahli ekonomi dan pembuat dasar di kedua-dua negara membangun dan maju. Kajian ini bertujuan untuk meneroka hubungan ini melalui perbahasan teori, kajian empirikal dan pemodelan ekonometrik untuk mendapatkan hasil yang substantif. Penemuan ini berguna untuk bidang makroekonomi. Model makroekonomi dibina atau dibangunkan untuk menganalisis kesan insurans terhadap pertumbuhan ekonomi, dan kesan insurans dipengaruhi oleh pembolehubah lain seperti inflasi, hutang kerajaan dan perbelanjaan kerajaan. Oleh itu, kajian ini bertujuan untuk menentukan hubungan jangka pendek dan jangka panjang antara insurans dan pertumbuhan ekonomi di Malaysia dan Singapura sepanjang tempoh 1990 hingga 2022 bagi memenuhi tiga objektif. Objektif pertama adalah untuk mengenal pasti hubungan antara insurans dan pertumbuhan ekonomi dengan pembolehubah terpilih di Malaysia dan Singapura, objektif kedua adalah untuk mengkaji hubungan antara insurans dan ekonomi dengan pembolehubah hutang kerajaan dalam jangka panjang dan jangka pendek, ketiga. Objektif adalah objektif adalah untuk mengkaji hubungan antara insurans dan ekonomi dengan pembolehubah perbelanjaan kerajaan dalam jangka panjang dan jangka pendek. Kaedah analisis dinamik yang digunakan dalam kajian ini ialah Autoregressive Distributed Lag (ARDL). Hasil kajian menunjukkan bahawa dari segi model hutang kerajaan, kedua-dua Malaysia dan Singapura terbukti mempunyai hubungan jangka panjang manakala dari segi model perbelanjaan kerajaan, terdapat juga bukti yang membuktikan wujudnya hubungan jangka panjang. Bagi model hutang kerajaan, hubungan jangka pendek didapati dengan pekali Error Correction Model (ECM) sebanyak -0.334235 (Malaysia) dan -0.194263 (Singapura). Bagi model perbelanjaan kerajaan, pekali ialah -0.382491 dan -0.011665. Kesimpulannya, kajian ini mencadangkan bahawa kesan insurans terhadap pertumbuhan ekonomi akan menjadi lebih jelas dan cekap di negara membangun, justeru menggalakkan pembangunan sektor insurans boleh menjadi cara untuk menyumbang pertumbuhan ekonomi.

CONTENTS

LIST OF TABLES

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

LIST OF FIGURES

LIST OF ABBREVIATIONS

ADF	Augmented Dickey Fuller
ARCH	Autoregressive Conditional Heteroskedasticity
ARDL	Autoregressive Distributed Lag
ASEAN	Association of Southeast Asian Nations
BLS	U.S Bureau of Labour Statistic
CPI	Consumer Price Index
CRS	Congressional Research Service
CUSUM	Cumulative Sum
CUSUM SQ	Cumulative Sum Square
DOLS	Dynamic Ordinary Least Square
ECM	Error Correction Model
FEVD	Forecast Error Variance Decomposition
FM-OLS	Fully Modified Ordinary Least Square
FRED	Federal Reserve Economic Data
GDP	Gross Domestik Product
GDT	Government Debt
GEXP	Government Expenditure
GNP	Gross National Product
ICT	Information and Communications Technology

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

IMF	Internasional Monetary Fund
INS	Insurance
IRF	Impulse Response Functions
LM	Lagrange Mutiplier Test
NAIC	National Association of Insurance Commmissioners Organization for Economic Co-operation
OECD	Development
OLS	Ordinary Least Square
RGDP	Real Gross Domestik Product
TFP	Total Factor Productivity
UNCTAD	United Nations Conference on Trade and Development
VAR	Vector Autoregression
WB	World Bank

APPENDIX LIST

CHAPTER 1

INTRODUCTION

1.1 Overview

Insurance and economic development are two important parts of economic development. Economic growth is vital to a country 's prosperity because it creates jobs, raises productivity and raises living standards (Acemoglu and Robinson, 2012). On the other hand, insurance provides financial guarantees for coping with various risks, such as health problems, natural disasters, and corporate failures (Huang and Wald, 2017). Insurance supports economic growth by reducing the impact of uncertain events on individuals and businesses, promoting risk-taking and entrepreneurship (Beck and Webb, 2003).

The nexus between economic development and insurance has always been the focus of academic and policy debate. The traditional view is that, insurance has a positive role in promoting economic growth, because it reduces the risk cost and provides a safety net for enterprises and individuals. By contrast, economic growth can also have a positive impact on the insurance market, as it creates new opportunities for insurers to expand their customer base and diversify their risk on portfolios (Cummins and Weiss, 2000).

This chapter serves as an introduction and outlines subsequent sections for further discussion. Section 1.2 provides background information on the study, while Section 1.3 details the problem statement. In Section 1.4, the research questions guiding this study are identified, and Section 1.5 discusses the hypothesis being tested. The general and specific objectives of the study are elaborated upon in Section 1.6, followed by an explanation of the framework in Section 1.7. Operational definitions for economic growth and other indicators are presented in Section 1.8, while Section 1.9 addresses the limitations of this research. The significance of this study is outlined in Section 1.10, concluding with a summary in Section 1.11.

1.2 Background of Study

Economic growth refers to the increase in the production of goods and services over a specific period compared to a prior period. It can be assessed in nominal terms or adjusted for inflation in real terms. Gross Domestic Product (GDP) and Gross National Product (GNP) are commonly used indicators to measure overall economic growth. The main contributors to economic growth include natural resources, labor factors, population dynamics, physical capital, technological advancements, and institutional frameworks. However, the primary drivers of economic growth are typically the expansion of the labor force and improvements in labor productivity (output per hour worked). While both factors can enhance economic aggregates, only significant productivity growth can lead to an increase in per capita GDP.

.

Secondly, economic growth serves as a vital indicator of economic performance because it can highlight both positive and negative aspects. Positive growth indicates that the value of goods and services is rising in particular countries, leading to enhanced economic stability. A stable economy allows businesses to generate greater profits, which can increase share prices and encourage further investments and hiring due to ample capital availability. As more jobs are created, consumer incomes rise, enabling individuals to spend more on products and services, thereby promoting additional economic growth. Therefore, it is beneficial for all countries to aim for positive economic growth.

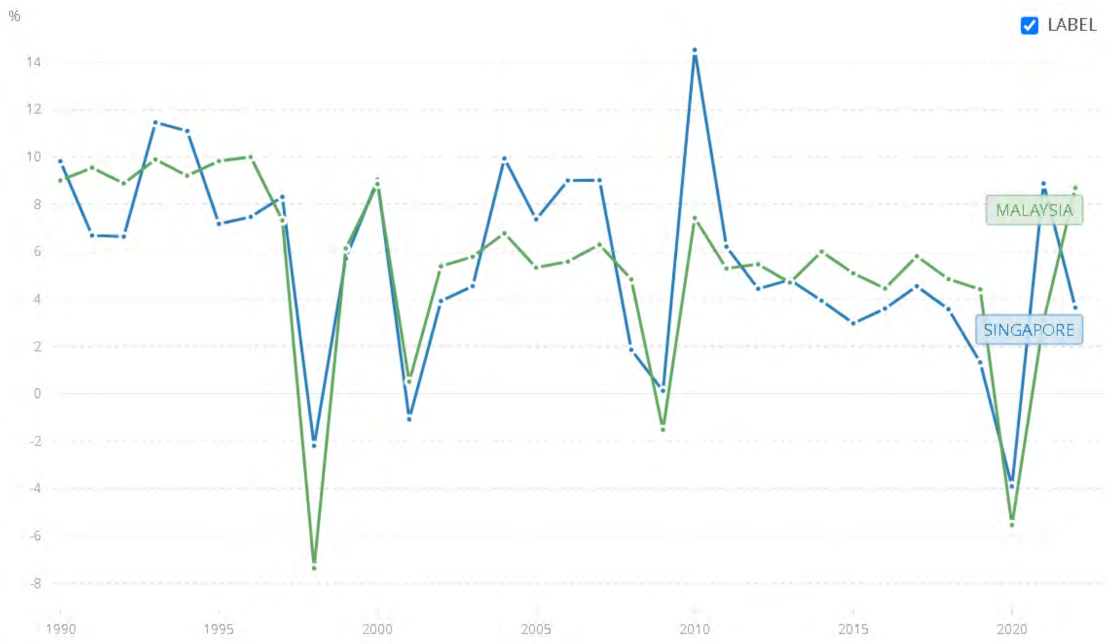
However, when a country's economy shows signs of negative growth, it reflects underperformance and reduces investor confidence. Negative growth is characterized by a decline in gross domestic product (GDP) over a yearly period, commonly indicating a recession in the business cycle. Unlike positive growth, negative growth is typically associated with falling real incomes, rising unemployment levels, and decreased production. Therefore, it is crucial for governments to carefully formulate their annual budgets and oversee fiscal and monetary policies to implement effective economic strategies that stabilize the economy over both short-term and long-term.

Numerous economic variables contribute to economic growth, such as private consumption, gross private investment, government expenditure, and net exports. These elements can yield both positive and negative effects on the economy. For example, when a country maintains a positive trade surplus, its GDP tends to increase. In contrast, a trade imbalance occurs when imports exceed exports, leading to a reduction in GDP. Economic growth trends can be observed through historical charts, providing investors with insights into the economy's performance over time, including during crises. The subsequent graph displays the economic growth trends for Malaysia (indicated by a blue line) and Singapore (shown as a green line), illustrating fluctuations over roughly three decades, particularly during the financial crises of 1998 and 2008 and the global pandemic crisis in 2020.

Figure 1.1

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

Economy Growth Trend of Malaysia and Singapore



Source: World Bank

There are many variables that impact the flow of a country's economic

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

development. However, the main intention of this study is to focus on a few components of GDP, such as insurance, which also contribute to economic growth and are therefore less well studied. As the insurance industry has gained increasing recognition among financial institutions, its contribution to economic growth has become more evident. In fact, insurance is also important as one of the contributors to economic growth nowadays. In general, insurance is an agreement whereby a company or government agrees to guarantee compensation for certain losses, damages, illnesses, or deaths in exchange for the payment of certain premiums. The insurance company uses these premiums for financial and investment activities in the economy. This process indirectly increases the GDP of the economy. With the recent worldwide pandemic crisis, the people are realizing the importance of insurance is significantly increasing. This has led to people purchasing insurance for themselves to avoid health risks. This indirectly encourages the correlation between insurance and economic growth to improve in the long term.

In 1964, the United Nations Conference on Trade and Development (UNCTAD) officially recognized that a sound national insurance and reinsurance market is the essential feature of economic growth. Unlike other financial institutions such as banks and stock markets, the importance of insurance is crucial to the sustainable economic growth of any country. This risk exists in every human activity from social life to economic activity Din, Regupathi and Abu Bakar (2017). The importance of insurance cannot be denied because of its economic prospects. For example, insurance expenditure accounts for 6.23 % of world GDP Sigma Swiss-Re (2016). More precisely, insurance spending in developed countries is about 8-11 %, compared with 2-4 % in developing countries (for instance, Din et al., 2017) and

Outreville, 2013) among others. However, statistics show that since 2005, the share of premiums in developed countries has dropped significantly from 88 % to 67 %, while premiums in emerging and developing countries are on the rise Sigma Swiss-Re (2016). The significance of the relationship between financial development and economic growth has been well recognized and emphasized in the field of economic development. Recent works on the subject seem to accept the assumption that financial development is essential for successful economic growth. Jung and Dee (1986). Like all financial intermediaries, the development of the life insurance industry has a significant training influence on the economy.Life insurance companies, functioning as contractual savings institutions, play a dual role by providing social protection for economic entities while also channeling the savings of many small investors in China into productive investment opportunities (Dickinson, 2000). Research indicates a significant positive relationship between the development of the insurance industry and economic growth. The insurance sector offers risk protection to businesses and individuals, reducing uncertainties and thereby improving the efficiency and stability of economic activities (Zhu, 2019). So, the researcher can conclude that the advancement of the insurance sector can provide stable risk protection for economic activities, thereby reducing uncertainty and risk and improving economic efficiency and stability. In addition, the insurance industry can also promote the development and improvement of capital markets, increase financing channels and investment opportunities, and further promote economic growth (Ahmad and Du, 2018). The activities of insurance companies have been regarded as one of the main factors driving economic growth and development in both advanced and developing countries Ward and Zurbrueg (2000). Insurance sector is a significant factor to impact economic growth in many ways.

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

Governments in many developing countries have traditionally believed that the financial systems they inherited do not adequately meet their development needs. Thus, over the past 30 years, they have made considerable efforts to change the structure of these financial systems and control their operations in order to channel savings into such investments that are considered priorities in their development plans. Many developing countries believe that locally registered insurance institutions are the basic elements of their economic and political independence. Today, the domestic insurance industry dominates in most developing countries. However, demand for insurance services remains low in many developing countries. According to François Outreville (1990), there are three categories that can be divided on insurance, namely life insurance, non-life insurance and reinsurance. For instance, Pakistan, as a developing economy, has been stimulating investment potential and trading abroad for many years. This is due to, they believe that the insurance industry can provide better risk management. Based on Din et al. (2013), by having insurance, it indirectly unified management of available resources for individuals and companies to cope with uncertainties and many other risks. Moreover, according to Anderson et al. (2010) that emphasized that the development of an economy depends largely on a powerful financial system. Many researchers have explored the role of financial institutions such as banks and stock markets on the economy growth, but the insurance industry was neglected until the 1990s (Dash et al., 2018; Angappan and Baker 2017; Din, Regupathi, Abu-Bakar, Lim and Ahmed 2020; Pham & Doan 2020; Ratnavati, 2020; Ruiz, 2018). Life insurance performs three main functions, namely risk transfer, compensation and intermediary. The oldest The form of insurance is shipping marine insurance, which promotes subsequent improvement in cross- border economic growth Njegomir and Stojić (2010).Previous researchers studying the relationship between the financial sector and economic growth focused on the banking sector or the stock market Horng, Chang and Wu (2012); Levine (1997); merton and Bodie (1995), while the insurance industry is still neglected (for instance, Haiss and Sümegi (2008); Negomir and Stojić, 2010); verma and Bala , 2013) among others. Until now, most empirical studies have assessed the impact of banking and stock market developments on economic growth (Levin, 2005). Insurance industry has become an indispensable part of financial development, it is a one of the contributors to the economic growth in developing and developed countries, yet there is still a lack of investigation particularly about the nexus between insurance and economic growth.

Insurance market activity which as financial intermediaries, has a positive influence on economic growth by improving the function of the financial system. They promote economic growth by improving the functioning of the financial system, both as providers of risk transfer and compensation and as institutional investors. There are many other specific techniques of how the insurance industry improves the financial system firstly by promoting financial stability, then it is promoting trade and commerce (i.e: the oldest insurance activity). Thirdly is by mobilizing domestic savings, next is managing different risks more effectively by encouraging the accumulation of new capital. Last but not least, promoting more efficient domestic capital allocation, and lastly, it is helping to reduce or mitigate losses (Skipper, 1997).

Dive dipper insurance can be specified into two main types, life and non-life insurance (property liability). It definitely has different effects on economic growth, because these two types of insurance protect households and property liability). In other words, the types of insurance will cover various risks that affect economic activities in

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

different ways or strategies. In addition, life insurance companies promote long-term investment rather than short-term investment like non-life insurance companies. It is reported in numerous literature that life insurance is associated with negative economic development (stated by, Zouhaier, 2014), Ching et al., 2010), Ward and Zurbruegg, 2000), Haiss and Sümegi, 2008), Omoke, 2012) Ghosh, 2013) among other studies. It does not only stop at that point, according to earlier research, insurance's contribution to economic growth is not always present, but an S-shaped curve. This statement is supported Arena (2008); Haiss and Sümegi (2008); han et al. (2010); Guochen and Chiwei (2012); Ward & Zurbruegg (2000) that believe life insurance has a somewhat important effect on developed economies. According to the literature above, life insurance and economic growth may have an unfixed relationship based on the different stages of financial development. Moreover, based on previous literature, the effect between life insurance and economic growth also differs across countries.

Furthermore, there is an increasing interest for many researchers to investigate the relationship between life insurance and financial development variables that indirectly will also influence economic growth. According to Brainard (2008), although banking, insurance and securities markets are closely related, the economic functions of life insurance are different. In view of this, special attention and analysis are needed in order to explore the relationship between this pair. The connection between the insurance sector and economic expansion has changed in recent years, it has attracted more and more attention from scholars. The association among these variables is not clearly articulated in the discourse surrounding the insurance-growth relationship. Researchers have debated the nature of causality, exploring whether economic growth fuels the insurance sector, whether it is the insurance sector that propels economic growth, or if both variables mutually influence each other. There are a lot of unanswered concerns regarding the relationship between the insurance business and economic growth. Cristea, Marcu, and Carstina (2014) stated that in certain nations, insurance plays a significant role. Certain European countries, such as the Netherlands, the United Kingdom (UK), Finland and other countries in the European Union (EU) have shown the contribution rate of life insurance to the Gross Domestic Product (GDP) of the economy is more than 10 %, indicating that the contribution rate of insurance industry is higher with the improvement of economic development. Recent studies have documented the relationship between the insurance depth and economic growth but ignored the direction of causality (Ward and Zurbruegg, 2000).

Based on previous literature, this study plays its role by exploring dipper insight in the issue of life insurance and economic growth using empirical analysis, in order to understand their relationship in short- and long- term (Lee et al., 2013). The causal relationship may be univariate: insurance depth may only be the result of economic growth (Beck and Webb, 2003); catalan et al., 2000). Some other previous studies also suggested bivariate causality between the observed variables (Chang et al., 2013). Meanwhile, as suggested by Peleckienė et al (2019), the research advanced method, like the dynamic econometrics approach can be adopted in order to understand the relationship between life insurance variables and economic growth.

In addition there are other macroeconomic variables that can examine the nexus between life insurance sector and economic growth. Based on Yaari (1965) completed a major study on life insurance, focusing on the rates of life insurance policies. This study also claimed that many social factors also affected life insurance ownership in the country. The researchers concluded that in terms of economic factors, each family has the same risk aversion tendency, which is also due to differences in individual demographic factors, sociocultural and psychological factors. Moreover, Yaari (1965) and Hakansson (1969) discovered that the process of optimizing the consumer utility function is the demand function for life insurance. This function makes use of variables like interest rate, income level, and life insurance premium supply according to the application and issue. Further research according to Outreville (1996) establishes a relationship between the growth of the insurance market in developing nations and the variables pertaining to premium income. The findings demonstrate a positive correlation between the rise of life insurance and income as measured by per capita GDP. This is a result of consumers' increased willingness to spend money, so higher incomes help increase demand for life insurance. Outreville 's research also concludes that the demand for life insurance policies changes as income increases because the

coverage it provides reduces losses in the event of an accident. This is also supported by previous findings by Cummins (1973) and more recently by Hwang (2003). For other businesses, insurance can ensure business continuity in the event of adverse conditions. In addition, premiums can be used as capital for further investment, additionally strengthen the economy. Nonetheless, the insurance sector will also be impacted by the expansion of the real economy. Higher income levels enable people to buy life and health insurance. In a similar vein, companies that earn more are more inclined to control their risks. Thus, in theory, the expansion and penetration of insurance are interrelated. Anwer et al. (2019) Haiss and Sümegi (2008) conducted cross-country panel data analysis of 29 European countries from 1992 to 2005, and found that GDP growth is positively impacted by life insurance. Their research results emphasize the impact of real interest rates and development of the economy and the expansion of insurance. They recommended that when analyzing the financial sector and developing macroeconomic policy, the insurance industry should receive more consideration. The economic growth across borders can be influenced by the development insurance as well as other macroeconomic factors that are related to financial development.

Economic growth also can be affected by government expenditure and government debt, Revenue-elasticity characterizes government spending, and as economies improve, so does the ratio of spending to revenue. Furthermore, public goods and services like law, infrastructure, and education that are supplied by the government for non-military objectives are sometimes considered as crucial components of economic growth. Changes in growth are positively correlated with government spending, meaning that as a nation's revenue increases, the size of its public sector also increases. This idea was first put forward by Adolph Wagner (1890), a German economist, who introduced the "law of expanded state spending" and demonstrated it by considering that as the economy grows: There will be a greater need for (a) state protection and administrative duties and (b) for social and cultural goods and services. In order to ensure that market forces run smoothly, the state will need to provide more social and cultural products and services, more protective and administrative functions, and more suitable administrative and bureaucratic control.

Other variables involved in this study as control variables are consumer indices as proxies for inflation. According to Ekinci et al. (2020), for the consumer price index, it was shown to have a non-linear relationship with economic growth. This is line with Javier and Ignacio (1997), Mario (2017), who believe there can be a correlation between inflation and economic growth with negative, positive and neutral depending on the economic situation, and Munir et al. (2009), who state that the link between inflation and economic growth is not linear and that there is a positive correlation with growth.

The last variables that involved in this model would be government debt, government expenditure, as it also has relationship with economy growth. Theoretical work suggests that if a country's debt level is already high, a debt backlog can prevent the nation from effectively issuing further debt out of concern that a default would have a detrimental effect on growth in the future. Woo and Kumar (2015); Myers (1977). model of generational overlap Diamond (1965); Blanchard (1985); Additionally, according to Modigliani (1961), having a lot of debt might hinder growth, alter expectations, or breed uncertainty. changes to sovereign yield spreads and Cochrane (2011) Reduced private investment is influenced by real interest rates and Codogno et al. (2003). Laubach (2008). A part of the national savings that ought to have been saved for future generations is being used by the public debt explosion. The consequent decline in savings raises interest rates, which lessens the incentive to invest. Since less investment results in less capital accumulation, economic growth is hampered. Thus, Endogenous growth models often indicate that public debt has a detrimental effect on long-run growth. Saint-Paul (1992); Barro (1990).

As mentioned above, there are various of insurance variables and macroeconomic instruments that can be considered to investigate the connection between insurance and economic expansion. In order to estimate market potential, researchers have recently expanded on traditional insurance indicators like density and depth. While the insurance sector has been acknowledged as having the ability to contribute to economic growth, the evaluation of this relationship has not received the same level of attention as it has in the banking sector Cristea et al. (2014). The evolution of the insurance market is closely related to macroeconomic factors (GDP, GDT, GEXP, CPI etc), regulatory practices in this particular industry and the global trading system United Nations (2007). In general, three unique proxies, such as net written premiums, penetration, and density, are used to measure insurance activity. Therefore, the study, which looks at the connection between insurance and economic growth, only utilized one proxy, such penetration, density, or net written premiums, but the choice of proxy also influencing the results.

Hence as has been discussed above, this study will conduct research regarding insurances as a contributor to economy growth with the presence of government expenditure and government debt separately. It is important to understand how the government expenditure and government debt are related, because Government debt is related to government spending because government spending is one of the main drivers of government debt. When government spending exceeds revenues, to make up the shortfall, it has to borrow money, which could result in a rise in the nation's debt. This borrowing can take the form of bond issues, which are debt securities that pay interest to bondholders.

In other words, government debt is the cumulative result of government spending exceeding government revenues in the past. When government spending exceeds government revenue, the government must borrow money to make up the difference, which increases the government's outstanding debt. conversely, if the government reduces its spending, it can help reduce the government's need to borrow, which in turn slows the growth of government debt. However, reducing government Governments must combine cutting debt with preserving social welfare because expenditure can also have a detrimental effect on economic growth. public service delivery. overall, government debt and government spending are closely related, and effective government management of both is important for promoting economic growth and stability. Therefore this study only focuses on countries' economic growth evaluated by the means of gross domestic product (GDP), and consumer price index as a proxy of inflation, government expenditure and debt. and life insurance as the measurement of insurance activity. Therefore, these control variables will be conducted separately in this study to avoid correlation problems, as a change in one variable may lead to a change in another variable, resulting in large fluctuations in the model. on the following section in this chapter will further elaborate on the focus of this study.

1.3 Problem Statement

The issue of insurance-led economic growth is not a new one. However, when COVID-19 outbreak in late 2019, the total global human contribution to insurance spending was increasing. The same is happening in Malaysia and Singapore. Here is a chart of 33 years of insurance data for Malaysia and Singapore.

Figure 1.2

Graph Insurance in Malaysia

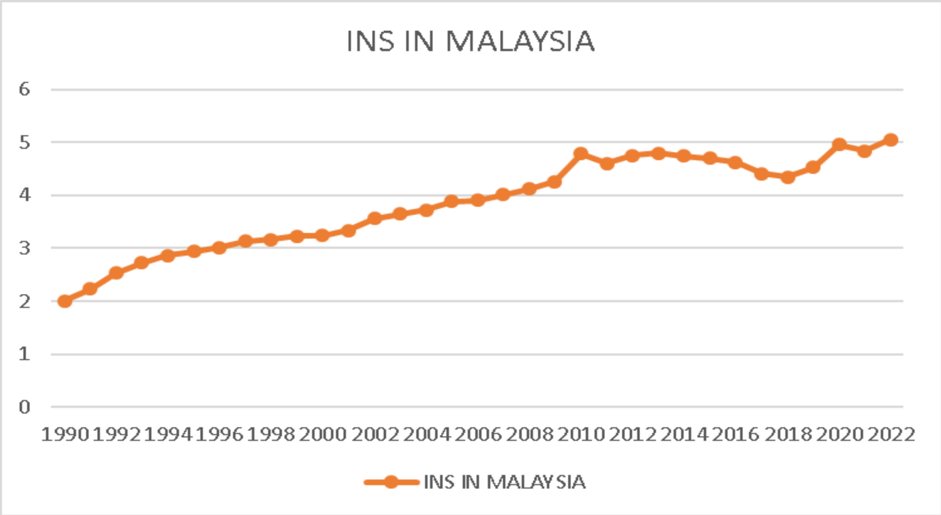
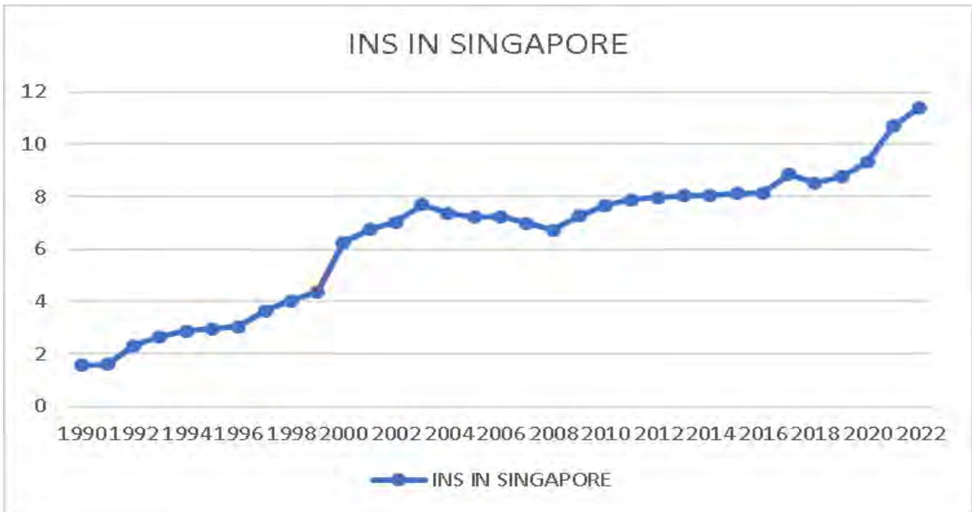


Figure 1.3

Graph Insurance in Singapore



Above figures are the line chart of insurance spending of Malaysia and Singapore. Insurance spending is defined as the ratio of total direct premiums to GDP, representing the relative importance of the insurance industry in the domestic economy. The indicator is expressed as a percentage of GDP.

As the figure shown, the insurance spending of both countries has been increasing consistently during the time 1990 to 2022. But there still exists fluctuation, Malaysia has declined slightly during 2010 to 2018, Singapore has declined slightly during 2002 to 2008. As for both countries, when there is an economic crisis, like covid-19, the insurance spending has increased sharply. Technically speaking, Insurance is an important part of the modern economy, providing risk protection and facilitating economic transactions. Therefore, this is why understanding the relationship between economic growth and insurance is worthy to examine. First it can inform policy decisions, for instance, if insurance is found to have a significant positive impact on economic growth, policymakers might consider measures to promote insurance uptake, such as subsidies or incentives. Conversely, if insurance is found to hurt economic growth, policies might be implemented to mitigate this effect. Second for investment decisions: Insurance companies and investors need to understand the relationship between economic growth and insurance to make informed investment decisions. If insurance is found to be a key driver of economic growth, investors might be more inclined to invest in the insurance sector.

The urgency of this study lies in the fact that while there is a growing body of research on the relationship between economic growth and insurance, there is a lack of research specifically focused on the context of Malaysia and Singapore. This gap in the literature is particularly important given the unique economic and regulatory environments in these countries. Moreover, the presence of government debt and government expenditure in these countries adds another layer of complexity to the relationship between economic growth and insurance. Understanding this relationship can provide valuable insights for policymakers and investors in these countries.

There are four reasons why the previous researchers have selected Malaysia and Singapore as the research object. First, both countries have experienced significant economic growth in recent decades and are among the most developed and developing countries in Southeast Asia. This makes them ideal case studies for studying the impact of insurance on economic growth in developing regions. Second, the insurance markets and regulatory environments in Malaysia and Singapore are very different. The insurance market in Malaysia is relatively new and underdeveloped compared to Singapore, which has a more mature and established market. This makes it interesting to compare the impact of insurance on economic growth in both countries and to identify the factors that influence the effectiveness of insurance in promoting growth. Third, the two countries have different economic structures and policy priorities. Singapore is a small, open economy that relies heavily on international trade and foreign investment, while Malaysia has a more diversified economy that relies heavily on natural resources. This makes it interesting to examine how the role of insurance in promoting economic growth differs in these two different economic contexts. Finally, both Malaysia and Singapore are important players in the ASEAN region and have a pivotal impact on the economic development of neighbouring countries. Understanding the relationship between insurance and economic growth in these two countries can provide insights that can inform policies and strategies to promote economic development across the region.

Broadly speaking, it can be seen that both figures above show an upward trend throughout the year in Malaysia and Singapore. Over the years, the insurance sector became large and dynamic due to GDP growth, driven by government intervention and economic policies. People started investing in insurance against future uncertainties and when the world pandemic crisis swept the world, the industrial sector gained more recognition. As a result of the fallout from this world crisis, more and more people gained access to health and life insurance. However, due to the recent pandemic crisis, the insurance industry suffered losses as there were many insurance claims and therefore the results remain ambiguous. Economic trends are generally in recession, with profits falling but claims increasing.

According to Babuna et al (2020). the relationship between total insurance spending and economic growth is positively correlated in 2020. The study noted that the pandemic crisis made the insurance industry and governments around the world a beacon of hope from which people sought salvation from total destruction. However, it has also overburdened some governments and put certain insurance companies in financial difficulty as the rapid increase in infections outpaces the recovery of those infected. This statement is supported by Phutkaradze (2014), which states that the relationship between total insurance expenditure and economic growth is negative. Next, according to Przybytniowski et al. (2022), the insurance industry may face the need to change its insurance structure to be more dynamic as insurers' mortality exceeds mortality because of the exposure associated with the pandemic crisis, as customers begin to notice different needs that make them feel safer in terms of health during the pandemic. As seen in the trends above for 2019 and 2020, the trend is on a downward trend.

But even so, as stated above, the insurance industry still helps and contributes to economic growth because organizations are able to engage in riskier and more rewarding activities because insurance acts as a protective safety net. The purpose of learning for both countries, Malaysia and Singapore, is because they have similar economic backgrounds, but are different and diverse in terms of labour force, business language, business registration and establishment, filing requirements, immigration requirements, income tax, corporate tax and many more differences. Therefore, this comparison is noteworthy because the autoregressive distribution lag (ARDL) method shows findings that can be classified according to the countries observed.

Therefore, in this related question, the questions to be addressed are 1) Does insurance affect long and short-term economic growth in Malaysia and Singapore? 2.) Does the presence of government expenditure variable as a control variable affect the effect of insurance on long-run and short-run economic growth in Malaysia and Singapore? and 3.) Is the presence of government debt variable as a control variable affects the effect of insurance on long-term and short-term economic growth in Malaysia and Singapore? However, since the relationship between insurance and economic growth is ambiguous and there is a lack of research in this area, the focus of this study is different from other empirical studies which are i) ARDL covariance technique used to determine the long-run relationship between series with different orders of integration Pesaran and Shin (1999), and Pesaran et al. (2001) observed annually, ii) The presence of government expenditure and government debt model, analysing the short-run and long-run relationship between insurance and economic growth in Malaysia and Singapore.

After that, the specific objectives aimed to achieve are 1.) To test the relationship between exogenous and endogenous variables in the government expenditure model and government debt model in Malaysia and Singapore, 2.) To analyse the long-run relationship between exogenous and endogenous variables in the government expenditure model and government debt model in Malaysia and Singapore, 3.) To analyse the short-run relationship between exogenous and endogenous variables in the government expenditure model and government debt model in Malaysia and Singapore. To achieve these objectives, the methodology used in this study is by performing an autoregressive distributed lag (ARDL) approach combined with robustness tests such as ordinary least squares (OLS), dynamic OLS and fully modified OLS. The results of this analysis have the potential to help policy makers to make compelling decisions for economic welfare. Without such an analysis, the interaction between variables and economic growth will remain unclear and it is difficult to conclude how recent improvements in key regional variables will affect macroeconomic factors.

1.4 Research Questions

The research questions in this are in line with the objectives of this study needed to be answered in this study. The general question of this study is that does life insurance affect the economic growth with the presence of government expenditure and government debt?

The specific research questions of the study are as follows:

1. What is the impact of exogenous variables on endogenous variables in the government expenditure and government debt models for Malaysia and

Singapore?

2. Is there a long-term relationship between exogenous and endogenous variables in the context of the government expenditure and government debt models for Malaysia and Singapore?
3. Is there a short-term relationship between exogenous and endogenous variables in the government expenditure and government debt models for Malaysia and Singapore?

1.5 Objective of Study

The study will use economic growth indicators for Malaysia and Singapore for a total of 33 years from 1990 to 2022. Both selected countries have similar backgrounds but have different classifications of countries by development. Despite Singapore's relatively limited economic resources compared to Malaysia, it has achieved a higher level of development due to its fast-paced industrialization in the manufacturing sector. The two nations maintain a deep-rooted and multifaceted relationship marked by significant trade, investment, and tourism activities. Additionally, the relationships between the consumer price index, insurance, government debt, and government expenditure with economic growth are dynamic in both countries. Therefore, the relationship of the variables will be tested using the ARDL method.

The overall objective of this study is to find out how life insurance affects GDP in the presence of independent variables such as government expenditure and government debt variables by conducting a constraint test of cointegration on the composite with the specific objective of:

1. To examine the impact between exogenous and endogenous variables in Malaysia and Singapore for government expenditure model and government debt model.
2. To analyse the long-term relationship between exogenous and endogenous variables in Malaysia and Singapore for government expenditure model and government debt model using ARDL model.
3. To analyse the short-term relationship between exogenous and endogenous variables in Malaysia and Singapore for government expenditure model and government debt model using ARDL model.

1.6 Hypothesis of Study

Based on the research questions revealed, the hypothesis of how life insurance, inflation, with the presence of government expenditure model and government debt model impact the gross domestic product will be tested. The hypothesis developed as below:

1. H_0: There is no significant relationship between insurance and gross domestic product for government expenditure model and government debt model in long-term.

   H_1: There is significant relationship between insurance and gross domestic product for government expenditure model and government debt model in long-term.

2. H_0: There is no significant relationship between insurance and gross domestic product for government expenditure model and government debt model in short-term.

   H_1: There is significant relationship between insurance and gross domestic product for government expenditure model and government debt model in short-term.

3. H_0: There is no significant relationship between inflation rate and gross domestic product for government expenditure model and government debt model in long-term.

   H_1: There is significant relationship between inflation rate and gross domestic product for government expenditure model and government debt model in long-term.

4. H_0: There is no significant relationship between inflation rate and gross domestic product for government expenditure model and government debt model in short-term.

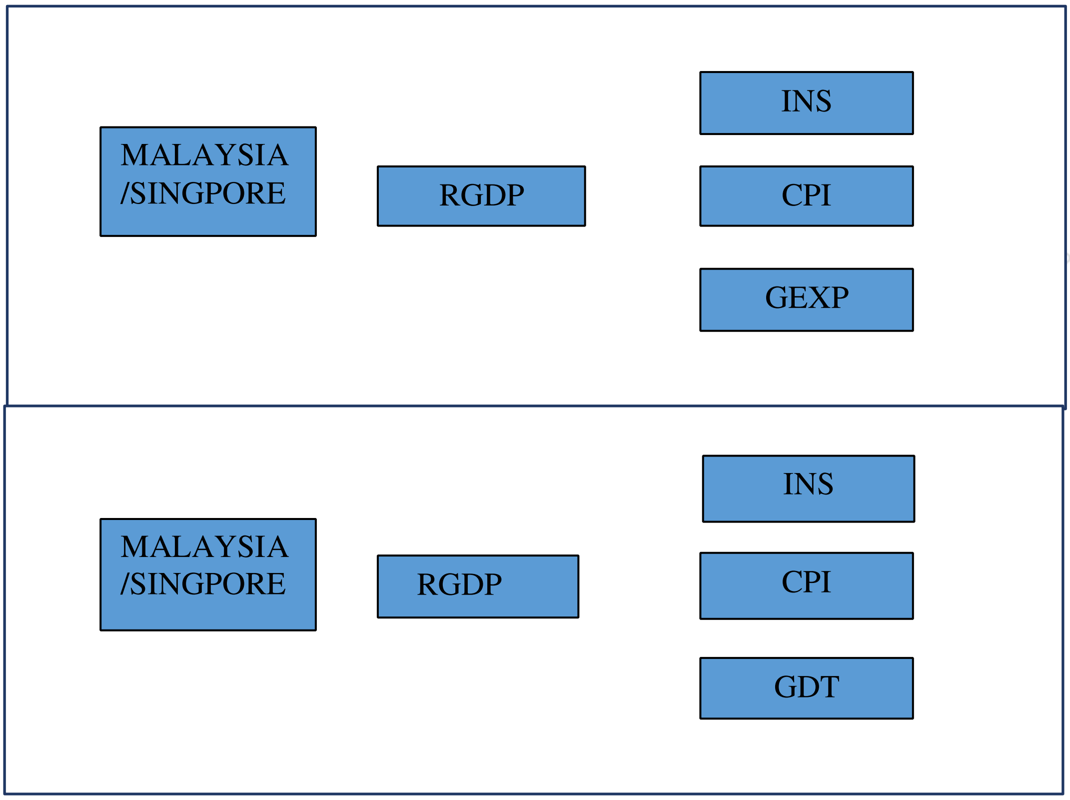
   H_1: There is significant relationship between inflation rate and gross domestic product for government expenditure model and government debt model short-term

1.7 Framework of Study

This study focuses on annual data on real GDP, insurance, inflation, government expenditure, and government debt for Malaysia and Singapore. The conceptual framework includes the causal relationships between the variables, namely real gross domestic product (RGDP) as a proxy for economic growth, insurance (INS), consumer price index (CPI) as a proxy for inflation (CPI), government expenditure (GEXP), and government debt (GDT). The conceptual framework is divided into two models as government expenditure and government debt variables are separated as control variables for this study.

Figure 1.4

Relationship Between Dependent Variable (RGDP) and Independent Variables for Malaysia and Singapore.



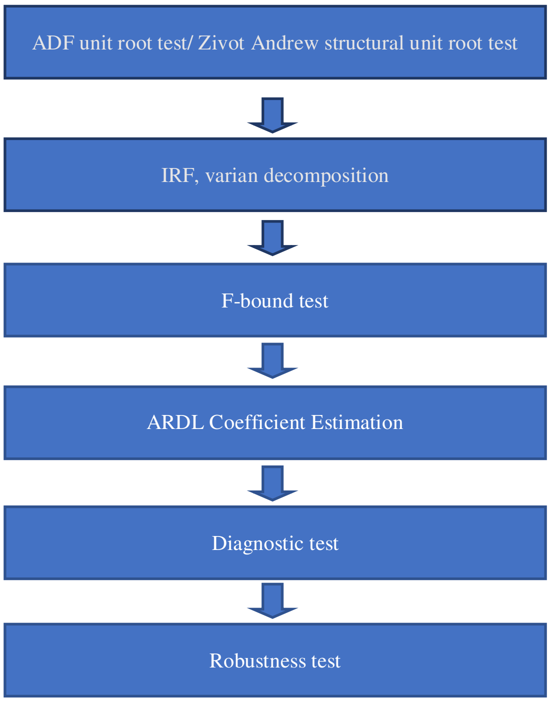
According to the chart above, RGDP is denoted as the dependent variable, while INS, CPI, GEXP, and GDT are the independent variables. All GDP is annual data from 1990 to 2020 and is the real GDP obtained by dividing the GDP by the CPI. All data are secondary data from OECD Statistic, World Bank and Federal Reserve Economic

Data as variables in this study. Also, all independent variables are particularly robust to stimulating economic growth.

In order to determine the relationship between the variables in this study, the autoregressive lagged distribution (ARDL) was chosen for the analysis of this study. As shown in the figure below, it is a methodological framework prior to conducting the ARDL, where each data had to run the ADF unit root test to test the smoothness of the data and to ensure that the data were not smooth at the second difference. The data is also run with a Zivot-Andrew structural break test to identify structural breaks in the data. Next, impulse response functions (IRFs) and variance decompositions will be implemented to investigate the interactions between variables in the vector autoregressive model. The next step will be to determine the long-run cointegration estimates through an F-boundary test. ARDL coefficient estimates are analysed for the significance of the variables in the long and short run, and finally, the model will be subjected to diagnostic tests before running robustness checks via quantile regression, ordinary least squares (OLS), dynamic OLS, and Fully Modified OLS.

Figure 1.5

Methodology Framework



1.8 Operational Definition

This section discusses and applies the definition of terms used in this study. If the terms explained in this study are not clear and concise, the results obtained from the study can be inconsistent and inaccurate. Thus, the discussion of the operational definition plays an important role to acknowledge other researchers to have a similar or same understanding of the terms used and results obtained from this study. The discussions of the terms applied in this study are as follows.

1.8.1 Real Gross Domestic Product

Real gross domestic product (real GDP) is a macroeconomic indicator that measures the total value of goods and services produced by a country's economy in a given period of time, adjusted for inflation. It is an important indicator of a country's economic performance and is used to measure the size and growth rate of an economy.

Real GDP is important because it more accurately represents the real growth of the economy by adjusting for changes in the general price level caused by inflation or deflation. Real gross domestic product is made out of different areas and financial exercises, each adding to the general creation inside a country. The essential parts include: Utilization (C): This addresses the absolute use by families on labor and products. It incorporates spending on strong merchandise (e.g., vehicles, apparatuses), non-sturdy products (e.g., food, apparel), and administrations (e.g., medical services, instruction). Investment (I): Venture, with regards to Gross domestic product, alludes to spending on capital merchandise that add to future creation. It remembers business investments for apparatus, hardware, structures, private development, and changes in business inventories. Government Spending (G): This part addresses the consumptions made by the public authority at the administrative, state, and neighbourhood levels. It remembers spending for public administrations, protection, foundation, and other government exercises net Commodities (Products - Imports): Net commodities represent the distinction between a nation's commodities and imports. A positive net commodity esteem adds to Gross domestic product, demonstrating that the nation is sending out more than it is bringing in. The equation for real Gross domestic product is obtained from these parts and fills in as a significant device for evaluating the generally speaking financial soundness of a country. The computation of real gross domestic product includes changing the nominal gross domestic product for changes in cost levels, giving a consistent dollar measure that reflects changes underway volume as opposed to cost vacillations. The gross domestic product deflator is a cost record that mirrors the typical change in costs of all labor and products delivered in an economy. By partitioning the Nominal Gross domestic product by the gross domestic product deflator and duplicating the outcome by 100, we get the real GDP.

To work out real gross domestic product, a base year is chosen against which the ongoing costs can measure up. The base year fills in as a benchmark, and the costs in that year are doled out a worth of 100. Resulting changes in costs are then reflected comparative with this base year. This philosophy considers the disengagement of changes underway volume from changes in cost levels. Real gross domestic product is much of the time communicated in consistent dollars, which address the worth of labor and products with regards to the costs of a particular base year. This consistent dollar measure works with significant examinations of financial results across various time spans, empowering experts to evaluate certifiable changes underway. Real Gross domestic product is an essential mark of financial development or constriction. Positive development in real Gross domestic product demonstrates an extending economy, while negative development signals financial constriction. Observing changes in Real Gross domestic product over the long haul gives bits of knowledge into the general wellbeing and heading of an economy. The real gross domestic product per capita, what partitions real gross domestic product by the populace, offers a proportion of the typical way of life inside a country. Expansions in real gross domestic product per capita recommend enhancements in expectations for everyday comforts, mirroring a higher accessibility of labor and products per person. Governments and policymakers utilize the real gross domestic product information to plan and evaluate financial strategies. Whether carrying out financial measures, money related arrangements, or underlying changes, understanding the effect on real gross domestic product is significant for compelling policymaking. The real gross domestic product information helps with distinguishing periods of the business cycle, including development, pinnacle, constriction, and box. Perceiving the ongoing phase of the business cycle illuminates decision-production for organizations, financial backers, and policymakers. real gross domestic product works with worldwide examinations of monetary execution. It permits examiners to evaluate and think about the financial result of various nations, taking into account contrasts in populace sizes and expansion rates.

While real gross domestic product gives a far reaching proportion of financial result, it is fundamental to perceive its restrictions and consider extra factors in monetary analysis: The real gross domestic product doesn't represent factors like pay dissemination, ecological maintainability, or generally speaking prosperity. Corresponding pointers, similar to the Human Improvement Record (HDI), may offer a more all-encompassing perspective on a country's personal satisfaction. The real gross domestic product may not completely catch financial exercises in the casual area, where exchanges happen outside conventional channels. In certain economies, critical segments of creation might go unaccounted for in real gross domestic product statistics. The decision of expansion measure, for example, the Consumer price index (CPI) or purchase power index (PPI), can affect the exactness of Real Gross domestic product computations. Different expansion measures reflect cost changes in unmistakable fragments of the economy. Real gross domestic product doesn't envelop non-market exercises, for example, family work and volunteer endeavors, which add to cultural prosperity however don't include money related transactions. Real gross domestic product may not completely represent the effect of mechanical progressions on creation and utilization designs. Mechanical changes can prompt the production of new labor and products, adjusting the organization of financial result. This allows for more meaningful comparisons of economic performance over time or between countries. The measurement of real GDP involves adjusting nominal GDP (which is the raw total value of goods and services produced) by an inflation index to produce a figure that represents the value of output in constant, inflation-adjusted dollars. Real GDP is usually measured on an annual basis, but can also be measured on a quarterly or monthly basis. Real GDP is used by policymakers, economists and investors to track and analyse economic performance and to inform fiscal and monetary policy decisions. It is also used to compare the economic performance of different countries and to assess the impact of economic policies and external shocks on the economy. Mankiw, N. G. (2021).

Most financial reading material portray the Gross domestic product as a far-reaching proportion of U.S. financial movement. Standard financial matters portray the Gross domestic product as the most dependable proportion of a country's economy since gives data about the size of the economy and the presentation of the economy in unambiguous timeframes. Fagan (2022) calls the Gross domestic product as an ideal proportion of financial prosperity. "Gross domestic product lets us know whether the economy is extending by delivering more labor and products or contracting because of less result. It additionally lets us know how the U.S. is performing comparative with different economies all over the planet" Fagan (2022) The Gross domestic product is determined as C + G + I + NX where "C" demonstrates individual utilization uses, "G" perspectives for absolute government expenditures, "I" is gross confidential investment, and "NX" is net commodities.

The Gross domestic product is determined on the yearly premise by the Department of Financial Investigation (BEA) and is registered utilizing information gathered from makers, retailers, manufacturers, overviews, and exchange stream reports. Furthermore, the standard financial aspects hypothesize that the Gross domestic product is valued by organizations since it assists with assessing markets. The financial backers might utilize the Gross domestic product to assess the efficiency of the country on the large scale. The Gross domestic product additionally gives the comprehension of which countries are developing at the quickest rates and could give the best profits from investment. Most financial reading material express that the Gross domestic product is exceptionally valuable for legislators and policymakers as a sign of what arrangements mean for the economy and monetary development. Fagan (2022) states that "policymakers, government authorities, organizations, financial specialists and the general population the same depend on Gross domestic product and related measurements to assist with evaluating the economy's prosperity and to settle on informed choices"

According to Mankiw, N. G. (2021) The benefits of real GDP include: 1. Measuring economic growth: Real GDP is used to measure the growth of an economy over time. By comparing real GDP in one period to another, policymakers, economists and investors can assess whether an economy is growing, shrinking or stagnating. 2.Informing Economic Policy: Real GDP is an important tool for informing economic policy decisions. Policymakers use real GDP to determine the appropriate fiscal and monetary policy measures to stabilize the economy or promote growth. 3.Comparing economic performance: Real GDP allows comparisons of economic performance between countries and regions. For example, by comparing real GDP per capita, analysts can assess which countries are richer or poorer, and by how much. Assessing Living Standards: Real GDP per capita is often used as an indicator of a country's standard of living. 4.While real GDP per capita does not reflect other factors that affect living standards, such as income inequality or environmental quality, it provides a rough measure of how much output is available to support the lives of each person in a given country/region.

1.8.2 Total Life Insurance Premium

Total life insurance premium refers to the total amount of money paid by policyholders to life insurance companies for coverage on their lives during a given period of time. It is an important measure of the size and growth of the life insurance industry and the demand for life insurance products. It also represents a liability as the insurer must provide coverage for claim being made against the policy. Failure to fulfil the condition will lead to cancellation of the policy. Life insurance has an influence on life saving and investment insurance.

Total Life Insurance Premium contains different parts, mirroring the assorted idea of extra security items. The essential sorts of life insurance include: Term Life Insurance: This kind of protection gives inclusion to a predetermined term or length.

On the off chance that the safeguarded individual passes away during the arrangement term, the demise benefit is paid out. Life insurance ordinarily has lower expenses contrasted with extremely durable extra security. Whole Life Insurance: Entire extra security offers inclusion for the whole lifetime of the safeguarded. Notwithstanding the passing advantage, it likewise incorporates a money esteem part that collects over the long run. Expenses for entire life insurance are for the most part higher however stay level all through the policyholder's life. Universal Life Insurance: General extra security gives adaptability in premium installments and passing advantages. Policyholders can change their exceptional installments and the passing advantage sum in light of changing monetary conditions. This adaptability recognizes it from entire life insurance. Variable Life Insurance: Variable extra security permits policyholders to put a piece of their expenses in different investment choices. The money worth and passing advantage can vacillate in light of the presentation of these investments. Variable Universal Life Insurance: This type consolidates highlights of both widespread extra security and variable life coverage. Policyholders have adaptability in premium installments, passing advantages, and investment choices.

Total Life Insurance Premium computation is a somewhat simple process. It entails adding up all of the premiums that policyholders have paid for various life insurance plans over a given time frame. The following is an expression of the total life insurance premium formula: The whole life insurance premium, universal life insurance premium, term life insurance premium, variable life insurance premium, and variable universal life insurance premium add up to the total life insurance premium. The whole life insurance premium, universal life insurance premium, term life insurance premium, variable life insurance premium, and variable universal life insurance premium add up to the total life insurance premium. It is noteworthy that there are different frequency options for paying premiums: monthly, quarterly, semi-annually, or annually.

Insurers and industry researchers can see a complete picture of the income from life insurance policies issued during a certain time period. Total Life Insurance Premium, even though total life insurance premium is a useful indicator, there are a few issues and variables to take into account that could affect how it is interpreted: Economic Conditions: Variations in the state of the economy may have an impact on premium payments. Policyholders may experience financial difficulties during recessions, which may limit their capacity to pay premiums. On the other hand, a recovery in the economy could mean higher premium payments. Interest rates: In order to make a profit, insurance firms frequently invest their premiums. Interest rate fluctuations may have an effect on insurers' investment income and, consequently, their total financial performance. Regulations: Modifications to regulatory frameworks may have an effect on premium schedules and the kinds of life insurance policies that are available. Insurance companies need to adjust to changing regulatory environments, which could have an impact on premium computations and payment schedules. Shifts in Demography: Aging populations, for example, might have an impact on the demand for life insurance products. When evaluating the probable expansion or contraction of their life insurance portfolios, insurers must take demographic trends into account. Competitive Landscape: The insurance sector is characterized by fierce rivalry, which can affect both product innovation and premium levels. In order to stay competitive and adapt to shifting consumer demands, insurers must continuously evaluate market conditions. Future Trends and Innovations: The life insurance sector is not exempt from changing customer expectations and technology breakthroughs. The following breakthroughs and trends are reshaping the industry: Digital Transformation: To improve client experiences, expedite workflows, and provide more easily accessible services, insurers are embracing digital technologies. Digital platforms make it easier for policyholders and insurers to communicate, administer policies, and pay premiums. Data analytics: By using data analytics, insurers may learn more about market trends, risk profiles, and customer behavior. Data analysis can help with underwriting choices, pricing tactics, and customized services. Insur tech Integration: New products and distribution channels are being introduced to the market by the integration of insurance technology, or insur tech. Data, AI, and automation are being used by insur tech companies to improve the productivity of policy administration and premium computation. Parametric Insurance: This type of insurance is becoming more popular. Rather than covering actual losses, it is based on predetermined parameters. This novel strategy may have an effect on premium structures as well as the way insurers evaluate and control risks. Sustainable and Ethical Investing: Sustainable and ethical investing is gaining popularity. As customer tastes change, insurers may increasingly match environmental, social, and governance (ESG) criteria to their investment portfolios.

People generally carry out local life activities, for example, associating between one individual and another. There are often risks involved in the activities, and no one knows how, when, or where the bad thing happened Wahono & Leng, (2022). A risk is an unexpected event that can result in material or non-material losses. Risk is undeniable so it should be limited in numerous ways, one of which is by taking protection Chumaida, (2013). insurance is a type of understanding between the guaranteed party/client and the guarantor/insurance agency. After the insured party agrees to pay a sum of money through an agreement known as a premium, the insurer agrees to bear a number of future losses. According to Malini, Putri, & Apriyani (2002), the level of risk borne by the insurance company can influence the size of the insurance premium, which is determined by the insurance provider and agreed upon by the policyholder. The insured's age, medical and lifestyle records, gender, and occupation may all be taken into consideration when setting the premium. insurance is extensively separated in a general sense, in particular friendly insurance and confidential insurance. Confidential insurance is partition into two, in particular broad insurance and individual insurance. Life insurance and health insurance are the two types of personal insurance Suryanto (2019). Life coverage is an understanding between the insurance company and the forthcoming policyholder, as an assurance in case of a demise debacle in the policyholder which brings about a deficiency of efficiency as funds. According to Sembiring (2016), the act of insuring one's life with an insurance company indicates that both parties have accepted the written agreement. According to Sembiring (2016), there are three types of life insurance: endowment insurance, whole life insurance, and term insurance. In this review, the sort of insurance utilized was term life insurance. Term life coverage is protection that gives total safeguarded on the off chance that the policyholder passes on inside the period as composed on the strategy and the agreement/protection arrangement Kamil, Suherman, and Murni (2021). According to Prathama, Barkatullah, & Erliyani (2019), owning life insurance is very important for families that rely on income because, when the policyholder (the heir) dies, the insurance will pay a sum assured to the heirs' family. Sum insured refers to a sum of money that will be distributed to heirs in the event of a participant's short life or death. Insurance won't forestall demise, yet protection safeguards an individual's monetary worthwhile unexpectedly biting the dust, with the goal that the main beneficiaries get remuneration for the worth of lost pay to live. Life insurance products are currently offered by a number of insurance companies, each with its own set of features and benefits. As a shopper, obviously, you should be shrewd in picking what sort of risk protection item and from which organization to pick, on the grounds that the insurance you have must be valuable and productive for clients. Additionally, there are insurance products that provide both health insurance and life insurance.

Total life insurance premium is important because of 1. Revenue generation Life insurance companies generate revenue by collecting premiums from policyholders. Total life insurance premiums are the primary driver of revenue for the life insurance industry. 2. Risk Management: Life insurance provides financial protection to policyholders and their families in the event of premature death. Total life insurance premiums reflect the amount of risk transferred from policyholders to life insurance companies. 3. Economic Growth: The life insurance industry is an important sector of the economy, providing jobs and contributing to economic growth. Total life insurance premiums are a measure of the industry's size and growth. 4. Social Benefits: Life insurance provides a safety net for families and individuals who may be in financial difficulty in the event of a premature death. Total life insurance premiums can be used to measure the level of protection provided to individuals and families in a given market or region. 5. Looking at patterns in Total life insurance premiums can give bits of knowledge into policyholder conduct. Changes in premium installments might reflect shifts in purchaser inclinations, monetary circumstances, or changes in monetary preparation. 6. Total life insurance premiums can utilize expense information to assess the presentation of various extra security items. This examination supports item advancement, advertising methodologies, and adjusting contributions to client interest.

7. Total life insurance premiums is a measurement utilized for industry benchmarking. It permits safety net providers to contrast their exceptional pay and industry midpoints and evaluate their piece of the pie. Such examinations give significant bits of knowledge to vital preparation and cutthroat situating. NAIC (2021) The measurement of total life insurance premiums involves adding up the premiums paid for all life insurance policies sold by a company or marketplace during a given period (usually one year). It includes premiums paid for term life insurance, whole life insurance, and other types of life insurance policies. Overall, total life insurance premium is an important measure of the size and growth of the life insurance industry, as well as a key indicator of financial stability and social welfare.

1.8.3 Consumer Price Index

The Consumer Price Index was generally founded on the idea of estimating the adjustment of a family's expense of buying a decent crate of products and services notwithstanding an adjustment of costs between two periods — so, and, an expense of-merchandise record. A more aggressive goal is to put together the record with respect to the idea of estimating the adjustment of the expense of keeping a family's way of life at some predefined level — a cost for most daily items. An estimate that reflects some measure of the average change in either the cost of goods purchased or the cost of maintaining a given standard of living for all or some subgroup of households must be produced by combining price and expenditure data in an aggregate CPI. In any case, the conglomeration of file numbers over the populace or over bunches isn't an issue that isolates cost for many daily items and cost-of-products records. Soon after the Boskin report was given, the Department of Work Insights let Congress know that it had, as a matter of fact, been involving cost for most often item hypothesis for quite a while to come to conclusions about the file and acknowledged the typical cost for most daily items record as its estimation objective for the Purchaser Value index (U.S. Authority of Work Insights, 1997). In any case, it likewise brought up that "the cost for many daily items is a hypothetical develop. not a single easy-to-use index formula, and it noted that a wide range of challenges needed to be overcome in order to bring the CPI closer to a cost-of-living index. The Department of Work Measurements requested the Council on Public Measurements from the Public Foundation of Sciences to lay out a board charged to investigate the calculated and factual issues that emerge in building a cost for most daily items file; to survey the benefits and troubles engaged with laying out the cost for many daily items file as the estimation objective of the CPI; and to provide the BLS with suggestions regarding its operational, data collection, and research programs. According to U.S Bureau of Labour Statistic BLS (2022), Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. The CPI is a commonly used measure of inflation and is important for assessing changes in the cost of living for consumers, as well as for making economic policy decisions. Besides, CPI is often used as a proxy for inflation hence this study also uses consumer price index as proxy for inflation.

The Consumer Price Index mirrors the costs of a different exhibit of labor and products ordinarily consumed by families. The container of labor and products is made out of different classifications, each doled out weight in light of its overall significance in family consumption. The essential parts include: Lodging: This classification incorporates the expense of safe house, lease, and homeownership costs. Changes in lodging costs fundamentally affect the general CPI because of their significant load in the container. Transportation: Costs connected with possessing a vehicle, public transportation, and fuel costs add to the transportation part. Vacillations in fuel costs and changes in transportation-related costs impact this classification. Food and Refreshments: The expense of food things, both at home and away from home, shapes a basic part of the CPI. Costs of food, feasting out, and non-cocktails add to the general record. Attire: Apparel and footwear costs are remembered for the CPI, reflecting changes in style, fabricating expenses, and purchaser inclinations. Clinical Consideration: Wellbeing-related costs, including clinical benefits, professionally prescribed medications, and health care coverage, are viewed as in the CPI. As medical services costs keep on developing, the clinical consideration part assumes a fundamental part in expansion estimation. Amusement: Relaxation and sporting exercises, like diversion, games, and the acquisition of sporting merchandise, are important for the CPI container. Changes in the expenses of amusement influence this classification. Instruction and Correspondence: Costs connected with schooling, including educational expenses, as well as correspondence costs like telephone utilities and web memberships, add to the CPI. Different Labor and products: This classification incorporates different incidental things and administrations, for example, individual consideration items, memorial service costs, and bank expenses.

The Consumer Price Index includes a few stages, including the determination of the container of labor and products, deciding the loads for every classification, and conglomerating the cost changes. The Department of Work Measurements (BLS) in the US is answerable for ascertaining and distributing the CPI. The philosophy incorporates the accompanying key stages: Container Determination: The BLS decides the organization of the bushel of labor and products in light of broad overviews of purchaser consumptions. The objective is to make a delegate test that mirrors the run-of-the-mill utilization examples of metropolitan purchasers. Weight Task: Every classification inside the container is doled out the weight in light of its proportionate portion of complete family consumptions. High-influence classifications, like lodging and food, get higher loads because of their importance in purchaser financial plans. Value Assortment: Prepared information authorities accumulate cost data for explicit things inside every classification. Costs are gathered consistently, ordinarily consistently, from a different scope of retail outlets, specialist organizations, and online stages.

While the CPI is a generally utilized and fundamental financial pointer, perceiving specific difficulties and contemplations: Replacement Predisposition: The CPI expects that purchasers don't change their spending designs in light of cost changes is significant. This supposition, known as replacement predisposition, may prompt a misjudgement of the expansion rate since purchasers frequently change their utilization in light of cost vacillations. Quality Changes: When the nature of a decent or administration improves, the BLS makes changes in accordance with representing the upgraded esteem. Be that as it may, deciding the suitable quality changes can be emotional and may present estimation challenges. New Item Presentation: The presentation of new items presents difficulties in keeping up with consistency in the CPI computation. Deciding the suitable container of merchandise and representing mechanical progressions can be mind boggling. Geographic Varieties: The CPI is intended to mirror the typical change in costs for metropolitan purchasers. It may not completely catch varieties in costs across various geographic districts, prompting possible disparities for purchasers in provincial regions.

The CPI is an essential sign of expansion. High CPI values show that the general degree of costs for labor and products is expanding, which could prompt diminished buying power for shoppers. Running against the norm, low CPI values propose that the general degree of costs for labor and products is steady or diminishing, which could show financial development. Consumer spending can be affected by changes in the CPI. Due to inflation, an increase in the CPI may reduce consumers' purchasing power, which may result in lower consumer spending. This can adversely affect financial development. On the other hand, assuming the CPI stays stable or diminishes, shoppers could hold a greater amount of their buying power, possibly prompting expanded customer spending and supporting financial development.

National banks frequently utilize the CPI as an instrument to execute money related strategy. For example, they could intend to keep the CPI inside an objective reach to oversee expansion and backing monetary development. The central bank may raise interest rates to cool the economy and reduce inflation if the CPI is higher than the target range. On the other hand, on the off chance that the CPI is beneath the objective reach, the national bank could bring down loan costs to animate the economy and lift monetary development. Adjustments to other income transfers, such Social Security and pensions, are also made using the CPI. This guarantees that these benefits stay up with the fluctuating cost of living, which may contribute to preserving economic stability and fostering economic expansion.

The CPI is important because of1.Inflation Measurement: The CPI is widely used as a measure of inflation, which is a key economic indicator. The inflation rate affects the purchasing power of consumers, the interest rates set by the central bank, and the overall health of the economy. 2. Cost of Living Adjustment: Many government programs, such as Social Security and some labor contracts, are tied to the CPI. This means that changes in the CPI affect the amount of benefits or wages individuals receive. 3.Economic policy: Central banks and governments use the CPI as a guide for setting monetary and fiscal policy. Understanding changes in the CPI can help policymakers make decisions about interest rates, government spending, and other economic policies. 4.Business Planning: Companies can use CPI to plan for changes in the cost of goods and services over time. This can help companies adjust their pricing strategies and manage costs more effectively.5. Consumer awareness: Consumers can use the CPI to understand changes in the cost of living and to make decisions about spending and saving. By tracking changes in the CPI, consumers can better plan for the future and make informed financial decisions. BLS (2022). In addition, the measurement of the CPI involves surveying households to determine their spending patterns on a range of goods and services, and then calculating the cost of purchasing those items over time. The CPI is calculated by the U.S. Bureau of Labor Statistics (BLS) and similar agencies in other countries/regions. Overall, the CPI is an important tool for measuring inflation and changes in the cost of living, and has important implications for individuals, businesses and policy makers.

1.8.4 Government Expenditure

Government expenditure refers to the amount of money spent by governments at various levels (federal, state, and local) on goods and services such as defence, education, healthcare, infrastructure, and social programs. Government expenditure is an important measure of government activity and is closely monitored by policymakers and economists. WB (2021).

Government expenditure can be comprehensively arranged into various structures, each filling particular needs inside the monetary scene: Utilization Use: Spending by the government on goods and services that are used within a predetermined time frame falls under this category. Public services like healthcare, education, and administrative costs are examples. Investment Use: State-run administrations designate assets for capital ventures to upgrade the drawn-out useful limit of the economy. Foundation projects, development of public offices, and interests in innovative work fall under investment consumption. Payments for transfer: These are installments made by the public authority to people, families, or different degrees of government without getting labor and products consequently. Examples of transfer payments include social welfare programs, pensions, and unemployment benefits. Interest Installments: States might bring about costs on interest installments for exceptional debts. These installments address the expense of getting and adjusting existing liabilities.

Government use can be arranged in view of its monetary effect and the idea of the labor and products gained. Current Expenditure and Total Expenditure are the two primary categories. Current consumption alludes to the public authority's spending on labor and products that are consumed inside the ongoing monetary year. This incorporates functional costs like pay rates, managerial expenses, and routine support. Expenditure on Capital: Capital use includes interests in long haul resources and tasks that add to the economy's useful limit. Framework advancement, development tasks, and interests in innovation are instances of capital use. The estimation of government expenditure is a perplexing interaction that requires exact recording and characterization of different exchanges. The accompanying advances frame the estimation approach: Monetary Interaction: Government use starts with the monetary cycle, where policymakers dispense assets to various areas and projects. The government's spending priorities for a given period are outlined in the budget, which serves as a financial plan. Transactions are recorded: Monetary exchanges connected with government expenditure are kept in the public authority's bookkeeping framework. The nature of each expenditure allows for the creation of comprehensive expenditure reports.

Expenditures are arranged into various classifications in light of their motivation, monetary effect, and the sort of labor and products gained. This order helps in dissecting spending designs and evaluating the public authority's needs. Auditing and verification: Government expenditure is dependent upon confirmation and examining to guarantee straightforwardness, precision, and consistence with laid out monetary guidelines. When determining whether or not government spending is legitimate and effective, independent auditing bodies are crucial. Reporting: Financial reports that detail government spending patterns are published on a regular basis. These reports give experiences into the designation of assets, the productivity of expenditure, and the in general financial strength of the public authority.

Government expenditure is a vital device in the execution of monetary strategy, which means to accomplish macroeconomic goals and balance out the economy. In economic policy, government spending plays the following roles: Counter-Repetitive Approaches: During monetary downturns, legislatures might build consumptions to balance the slump. This counter-repetitive methodology means to animate interest, make occupations, and backing financial recuperation. Monetary Upgrade: Legislatures utilize expanded expenditure as a monetary improvement to help financial action. This could be done by increasing transfer payments to households, cutting taxes, or direct spending on public projects. Expansion Control: In order to control inflation, governments can adjust spending. Policymakers may reduce spending to maintain price stability and cool demand if the economy is overheating and inflation is rising. Long haul Arranging: Long-term economic expansion is aided by capital expenditure on infrastructure and development projects. In order to promote sustainable development and allocate resources effectively, governments engage in strategic planning. Social Arrangement Execution: Spending by the government plays a crucial role in putting social policies in place to address problems facing society. Education, healthcare, the fight against poverty, and other social welfare programs are all included in this.

While government use serves basic capabilities, it isn't without difficulties and contemplations: Limits on spending: Legislatures face financial plan imperatives, and contending needs require hard decisions. Adjusting the requirement for fundamental administrations, foundation venture, and financial obligation requires cautious preparation. Proficiency and Responsibility: Guaranteeing the proficiency and responsibility of government expenditure is a consistent test. Measures like straightforward planning, powerful oversight, and standard reviewing are fundamental to relieve the risky of botch. Debt Supportability: Elevated degrees of government expenditure, especially whenever subsidized through getting, can prompt worries about debt supportability. Overseeing debt levels is urgent to forestall unfriendly impacts on financial dependability. Political Contemplations: Government expenditure is much of the time affected by political contemplations, prompting the allotment of assets in view of appointive cycles or political needs. Finding some kind of harmony between political goals and monetary necessities is an unending test. Financial Externalities: The financial effect of government expenditure can have externalities, both positive and negative. Potentially negative results, like inflationary tensions or market contortions, may emerge from specific spending choices.

In the result of WWII, there was a broadly perceived need in many created nations to grow public spending and oblige an expansion in the general size of the public authority area. This was based on the idea that more government intervention was the best, if not only, way to achieve certain social and economic goals. Since the 1970s, be that as it may, the legitimacy of this view has been addressed. Not just has there been an expansion in distrust about what public spending could achieve, however there has likewise been an expansion in the acknowledgment of the resulting unfavorable outcomes of subsidizing such spending as a secondary effect. Specifically, the new accentuation on the underlying parts of monetary execution has stressed the risky of creating disincentives to the development that the public authority might bring attempting to do excessively. This, among different reasons, has prompted conscious strategies to restrict the development of government spending or even decrease its level. At the same time, the clear objectives of economic policy made it important for the task of reorganizing the economy and promoting faster economic development to be left to an often-nascent private sector in developing nations. This prompted strategies of expanding public expenditure, generally joined by an expansion in open mediation. The 1973 and 1979 oil crises in many of these nations sparked campaigns to reduce public spending growth in a more austere financial environment. Behind the frequently disputable scenes, there is a fascinating discussion around the effect of these arrangement changes in both created and emerging nations as legislatures cut back on financial development.

Government expenditure is important because of 1. Economic Growth: Government spending can stimulate economic growth by increasing demand for goods and services, creating jobs, and improving infrastructure. However, excessive government spending can also lead to inflation and budget deficits.2. Public goods and services: Government spending is necessary to provide public goods and services that the private sector may not be able to provide, such as national defence and public education. OECD (2018). 3.Income redistribution: Government spending can be used to redistribute income through social welfare programs and progressive tax systems. 4.Job creation: Government spending on public works projects and infrastructure projects can create jobs and stimulate economic growth. 5.Political stability: Government spending can promote political stability by providing basic services to citizens and reducing social unrest. 6.Social Government assistance Projects: The goal of spending on social welfare programs is to reduce poverty, eliminate inequality, and raise the standard of living of those who are most at risk. This category includes assistance with housing, food stamps, and unemployment benefits, among other things. To boost economic efficiency, connectivity, and overall development, governments invest in infrastructure projects like roads, bridges, and public transportation.

Framework spending can affect efficiency and intensity. 7.New Ideas and Research: expenditure on innovative work cultivates development, mechanical headways, and logical advancement. Legislatures allot assets to help research drives that add to monetary development and seriousness. Ostry, J. D, Loungani, P, & Furceri D. (2016) The measurement of government expenditure involves tracking the amount of money spent by governments at various levels on different types of goods and services. This information is typically reported in government budgets and financial reports.

1.8.5 Government Debt

Government debt refers to the amount of money owed by a government to its creditors, including individuals, corporations, and other governments. It is an important measure of a government's financial health and is closely monitored by economists, investors, and policymakers. WB (2021).

The various means by which a government borrows money are reflected in the various forms of government debt. Bonds are the most common form of government debt. Bonds are issued by governments to borrow money from investors. Debt securities with a predetermined maturity date and periodic interest payments up to that point are known as bonds. By purchasing these bonds, investors lend the government money. Depository Bills (T-Bills): T-Bills are momentary obligation instruments with developments ordinarily going from a couple of days to a year. They are sold at a rebate to their presumptive worth, and the distinction between the price tag and the assumed worth addresses the premium procured by the holder. Notes: The maturities of government notes range from two to ten years, making them medium-term debt instruments. They repay the principal at maturity, after which they pay interest to bondholders on a periodic basis. Loans: Through loans, governments can also borrow money directly from other governments, international organizations, and commercial banks. These advances accompany explicit agreements, including loan costs and reimbursement plans.

Depending on its maturity, ownership, and currency denomination, government debt can be classified as follows: Classification of maturation: Debt for the Present: includes debt with a one-year or less maturity, like Treasury Bills. Medium-Term Debt: includes government notes and other debt with maturities ranging from two to ten years. Long haul debt: Includes debt with developments surpassing decade, for example, government bonds. Classification of ownership: Homegrown debt: Alludes to debt owed to homegrown lenders, including residents, banks, and other homegrown monetary establishments. Outer debt: encompasses debt that is owed to creditors from other countries, such as foreign governments, international organizations, and investors. Denomination of Currency: Neighbourhood Money debt: denominated in the nation borrowing the money's domestic currency. Unfamiliar Money debt: Designated in an unfamiliar money, presenting the public authority to conversion standard vacillations.

The total outstanding debt must be tracked in order to measure government debt, and the debt level's sustainability must be evaluated. Key stages in estimating government debt include: Recording debt Issuance: The specifics of a government's issuance of debt instruments like bonds or T-Bills are recorded. This incorporates the sum acquired, the loan fee, and the development date. Accumulation of Interest: As debt instruments accumulate interest after some time, state run administrations record the interest costs related with extraordinary debt. The accumulation of interest adds to the general debt trouble. Payments for Debt Services: Governments make debt service payments on a regular basis, which include principal and interest payments. These installments are kept in budget summaries, and the recurrence fluctuates relying upon the particulars of the debt. Checking Changes Under Water Levels: State run administrations constantly screen changes under water levels to survey the effect of new borrowings, debt reimbursements, and variances in loan costs. For monitoring the dynamics of debt, regular reporting and financial transparency are essential. Ratio of debt to GDP: The debt to-Gross domestic product proportion is a generally utilized measurement to survey the supportability of government debt. It analyzes the absolute debt level to the size of the economy, giving bits of knowledge into the general weight of debt.

Despite the fact that government debt is a common feature of fiscal policy, there are a few obstacles and considerations: debt Supportability: A crucial factor to take into account is whether government debt can be sustained. A government's debt must be serviceable at a level that does not compromise its ability to fulfill other essential debts. Loan cost Chance: Legislatures face financing cost risk, especially in the event that a huge piece of their debt conveys variable loan fees. Costs associated with debt service and overall budget stability may be affected by changes in interest rates. Economic Recessions: Financial slumps can worsen debt challenges as government incomes decline while uses might have to increase for monetary boost. During times of economic stress, careful planning is required to manage debt. Political Tensions:

Political constraints may impact the choice to bring about debt, frequently determined by transient political contemplations. This can have an effect on long-term fiscal sustainability and lead to poor borrowing decisions. Debt Structure: Risk exposure can be affected by the mix of short-term and long-term debt in government debt, as well as the currency denomination. Weighty dependence on unfamiliar money named debt, for instance, may build weakness to swapping scale vacillations.

Government debt is important because of 1.Fiscal sustainability: High levels of government debt can undermine the government's fiscal sustainability because debt service consumes a significant portion of government revenue and limits the government's ability to fund other programs.2.Economic Stability: High levels of government debt can also lead to economic instability because investors may be concerned about the government's ability to repay its debt and demand higher interest rates, which can increase the cost of borrowing for the government and other borrowers economically. Investor Satisfaction: The degree of government debt can impact financial backer trust in the strength of a nation's funds. Investor confidence may be lowered by high debt levels, particularly when accompanied by concerns about fiscal discipline. Limits on policy: During economic downturns, policy options may be limited by government debt. Legislatures with raised debt levels might confront requirements in carrying out financial improvement measures on the off chance that extra getting isn't achievable. CRS (2019). The measurement of government debt involves tracking the total amount of outstanding debt owed by a government, as well as the government's debt-to-GDP ratio, which is a measure of the government's ability to repay its debt. This information is typically reported in government budgets and financial reports.

On the other hand, Government debt might be beneficial in certain period of and conditions. One potential benefit of government debt is that it can be used to finance public investments that promote economic growth, such as infrastructure projects, education and research and development. By borrowing money to finance these investments, governments can create jobs, increase productivity and stimulate economic activity in the short term, while providing long-term benefits to the economy.

Another potential benefit of government debt is that it can help stabilize the economy in times of economic downturn or crisis. By increasing government spending or providing fiscal stimulus, the government can help offset the effects of a recession or financial crisis and support economic growth and employment. IMF. (2021). However, high levels of government debt can also have negative effects, including higher interest rates, inflation and reduced fiscal flexibility. High levels of government debt may also lead investors to worry about the government's ability to repay its debt, which could lead to higher borrowing costs and reduced access to credit. Blanchard, O (2019).

1.9 Limitation of Study

The study has identified several limitations that can be improved in further research. For instance, this study only examines co-integration by using Keynesian theory, and is restricted to only five variables, real economic growth, life insurance premium, consumer price index, government expenditure, and government debt. Second, this study limits its sample to only southern Asia countries, namely, Malaysia, and Singapore.

Third, the study's shortcomings in the implementation of the data collection method because the data found from 1990 is only life insurance and not insurance premiums because the insurance premium data was only found from 2017. Therefore, this study uses life insurance data to show the insurance industry because life insurance is the largest component of the insurance industry.

Fourth, the study was the development of the study objectives and goals. This study used total life insurance variables rather than insurance itself, so future researchers could use the correct data, which could increase the focus of the study and provide more reliable results.

Finally, the limitations of this study also lie in the form of the scope of the discussion. As this study is ongoing, the scope and depth of discussion in this study may not be very in-depth compared to the work of experienced scholars due to the lack of experience in conducting research and publishing academic papers. Nevertheless, the findings from this study are able to achieve the research objectives and provide appropriate results for the research questions.

1.10 Significance of Study

The insurance industry is important because it provides a protective safety net that allows organizations to engage in activities that are riskier and more rewarding than they otherwise would be. These behaviours help companies operate successfully, thereby creating more jobs and increasing overall economic activity. This study was conducted to determine the short- and long-term relationship between insurance and economic growth, and therefore for governments, policy makers, and economists to forecast and plan for economic stability and sustainability through the insurance industry, by promoting more effective risk management across all hazards, and by leveraging domestic savings, the activities of the insurance market, both as a financial intermediary and as a provider of risk transfer and compensation.

Deliberately, this study is important for a cross-country study to investigate the dynamic relationship between insurance and economic growth in Malaysia and Singapore. This comparative study aims to find the results for countries based on the same methodology. This is because Malaysia is a developing country, but it is compared with another developed country, Singapore. Moreover, Singapore and Malaysia have a long, extensive and multifaceted relationship. Bilateral trade, investment and tourism relations are strong; therefore, we can see the differences between the two perspectives in this study.

In addition, this study is also important because this study can be referenced by future more experienced researchers for larger studies about insurance and its potential in economic growth. The implications of this study also include the implications for society. By understanding the important results of this study, it can help society make decisions in the future because insurance can reduce losses, maintain financial stability, and facilitate trade and business activities that lead to long-term economic expansion.

1.11 Summary

Overall, this study aims to determine the relationship between insurance and economic growth, with government debt and government expenditure as control variables in Malaysia and Singapore. This study will be conducted using ARDL methodology to achieve its objectives. Less research on the insurance industry in Asian countries is one of the main sources of this study, drawing on foreign research findings to study the behaviour of insurance in economic growth. This study will be conducted to determine the objectives, research questions and hypotheses established for this study using the designed framework and methodology.

This current chapter provides a discussion on the background and problem statements for the study. For upcoming chapters, the arrangement is as follows. Chapter2 discusses the theoretical and empirical reviews of the previous literature on the competing theories and variables in this study. This followed by the discussions of methodology in Chapter 3 that provides detailed data and methods applied in this study. Chapter 4 presents and discusses the result obtained from the analysis of the Keynesian growth theory function to achieve the objectives of this study. Capter5 concludes the study, provides implications of the study and suggests and some recommendation for further research.